

中国毛根蚜属研究及新种记述

(同翅目:瘿绵蚜科)

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本文记述采自河北涉县的毛根蚜属一新种: 小瘿毛根蚜 *Chaetogeoica utriculata* sp. nov.。模式标本保存于中国科学院动物研究所标本馆。

毛根蚜属 *Chaetogeoica* Remaudiere et Tao, 1947

Revue Path. veg. Ent. agric. Fr. 36(4): 226.

模式种: *Pemphigella foliidentata* Tao, 1947

属征 无翅型触角5或6节,有翅型触角6节。有翅型成虫头有中缝,纵贯头部。初生感觉圈和次生感觉圈有睫。有翅型触角节 III 和 IV 具1个以上的次生感觉圈,前翅翅脉淡色,细弱,中脉简单,两肘脉基部共柄,成叉状,后翅中、肘两脉平行。腹管缺,尾片、尾板圆形。

该属与角瘿蚜属 *Baizongia* 十分接近,均在黄连木上营瘿,但虫瘿外形易识别,该属虫瘿扁平,末端有4或5个角状突起,瘿体两侧相应有4或5条纵条纹。而后者则形成牛角状虫瘿,瘿表无条纹,顶端无突起。

种检索表

有翅孤雌瘿蚜和虫瘿

1. 虫瘿小,长1.0—1.5mm,高0.6—0.7mm;有翅孤雌瘿蚜触角节 III 有5—7个排列整齐的次生感觉圈,IV有1,V无次生感觉圈……………小瘿毛根蚜 *Chaetogeoica utriculata* 新种
- 虫瘿大,长2.2mm,高2.2mm;有翅孤雌瘿蚜触角节 III 有8—14个排列不规则的次生感觉圈,IV有2—5,V有0—2个次生感觉圈……………梳齿毛根蚜 *Chaetogeoica folidentata* Tao

梳齿毛根蚜 *Chaetogeoica folidentata* (Tao, 1947)

Pemphigella folidentata Tao, Notes D'Entomologie Chinoise 1947, 11(5): 153; Zhang et Zhong, Forest Insects of Yunnan, Yunnan Science & Technology Press 1987. 345 (in key).

Baizongia folidentata Shaposhnikov, Inst. Zool. Aca. Sc. Lennigrad 1955, 782.

Chaetogeoica folidentata Remaudiere et Tao, Revue Path. veg. Ent. agric. Fr. 1957, 36(4): 227.

寄主: 漆树科 (Anacardaceae): 黄连木 (*Pistacia sinensis*)。

分布: 江苏(南京),浙江,四川,云南(大理);前苏联。

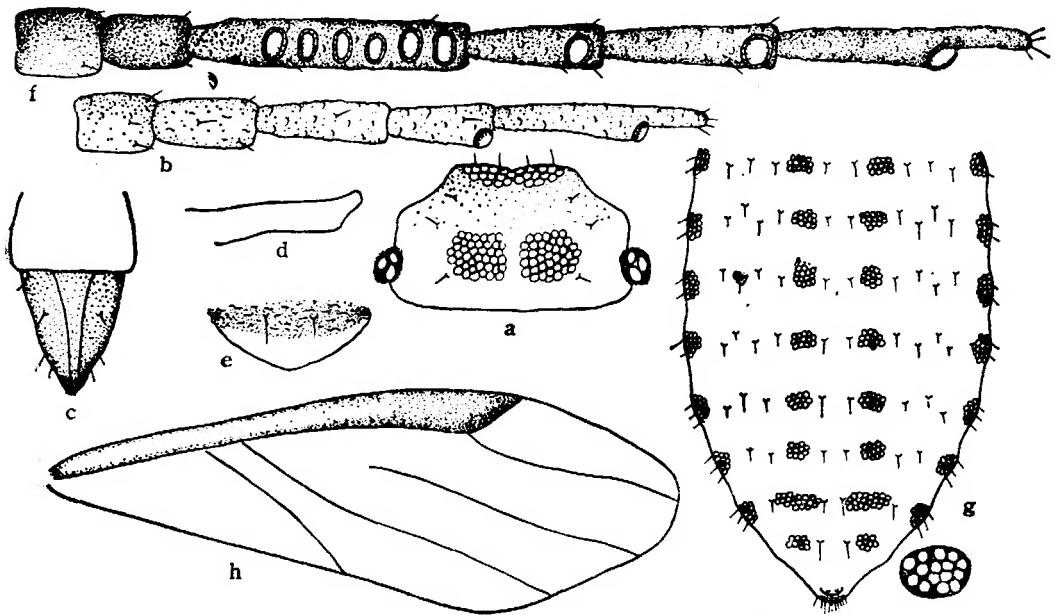


图1 小瘿毛根蚜 *Chaetogeoica utriulata* Zhang W. Y. & G. X. Zhang sp. nov.

无翅孤雌蚜: a. 头部背面观; b. 触角; c. 喙端部; d. 中胸腹盆; e. 尾片;
有翅孤雌蚜: f. 触角; g. 腹部背面观; h. 前翅。

虫瘿位于小叶正面,接近主脉,侧扁,有4或5条侧隆起,两隆起之间先端靠拢,合成小角,虫瘿黄绿色,光滑,成熟后红黄色。

小瘿毛根蚜 *Chaetogeoica utriulata* Zhang, W. Y. & G. X. Zhang 新种 (图1)

无翅孤雌蚜: 活体黄色,被长蜡丝。玻片标本体淡色,无斑。触角、喙、足淡褐色。尾片、尾板褐色。体有淡色大型圆蜡片,由20—50个蜡胞组成,头部蜡片发达,头顶和头背各一对,胸各节和腹节 I—VI 各有中、侧、缘蜡片各1对, VII、VIII 仅有中、缘蜡片2对,有时中蜡片愈合。体背毛尖,头顶毛2对,背毛5或6对;前胸中毛2,侧毛1,缘毛1对;腹节 I—VI 各有中、侧、缘毛2或3对, VII 中、侧毛各2对, VIII 共2根毛;头顶毛长0.023,腹节 I 毛长0.011, VIII 长毛0.012mm。触角5节, I—V 的毛数: 2或3, 2—4, 0或1, 1—3, 0+4根,节 III 长毛为该节直径的1/4—1/3。喙不达中足基节,端节有2—4根次生毛。足第一跗节毛序: 2, 2, 2。腹管缺。尾片有2根毛。尾板有12—14根毛。生殖板有16或17根毛。生殖突2簇,每簇有6—8根毛。

量度 (mm): 体长1.722,宽1.024;触角全长0.345,节 I—V: 0.040, 0.057, 0.073, 0.057, 0.086+0.032;喙端节0.067;尾片0.040;后腿节0.227;后胫节0.249;后跗节 II 0.087。

有翅孤雌蚜: 玻片标本头、胸黑色,腹部淡色,无斑。触角、喙、足黑褐色。尾片、尾板褐色。体有淡色大型圆蜡片,每一由10—25个蜡胞组成;前胸有中、缘蜡片各1对,后胸有1对小蜡片,腹节 I—VIII 各有中蜡片1对, I—VII 有缘蜡片各1对。体背毛尖。触

角 6 节, 节 III 长毛为该节直径的 $1/4-1/8$, 次生感觉圈大, 圆形, 有长睫, 节 III 有 5—7 个, 排列整齐的次生感觉圈, IV 有 1 个, V 无。喙不达中足基节, 端节有 2—4 根次生毛。足第一跗节毛序: 3, 3, 3。腹管缺。尾片有 2 根毛。尾板有 15 或 16 根毛。生殖板有 20 或 21 根毛。

量度 (mm): 体长 1.843, 宽 0.870; 触角全长 0.559, 节 I—VI: 0.043, 0.053, 0.154, 0.071, 0.097, 0.103 + 0.043; 喙端节 0.065; 尾片 0.029; 后腿节 0.290; 后胫节 0.462; 后跗节 II 0.118。

正模: 无翅孤雌蚜, No. Y5545—1—2—4, 河北, 涉县, 1984. VI. 9, 黄连木 (*Pistacia sinensis*), 田士波采; 副模: 3 个无翅孤雌蚜, 8 个有翅孤雌蚜, 其它同正模; 2 个有翅孤雌蚜, 1982. VI. 下旬, No. Y2581, 刘慧英采, 寄主和地点同上。

该种虫瘿鸡冠形, 长 1.0—1.5, 高 0.6—0.7cm, 有纵向脊纹, 虫瘿沿主脉形成。一瘿内有 10 余头蚜虫。与梳齿毛根蚜在虫瘿大小及有翅孤雌蚜触角上的次生感觉圈明显不同, 见检索表。此外触角第 3 节为喙端部的 2.4 倍, 而梳齿毛根蚜的触角第 3 节为喙端部的 1.1 倍。

与印度的禾毛根蚜 *Chaetogeoica graminiphaga* Raychaudhuri, Pal & Ghosh, 1978 相近, 但有翅孤雌蚜喙端节为触角第 3 节的 0.42 倍(禾毛根蚜: 1.0 倍); 喙端节为后跗节 II 的 0.56 倍(大于 1 倍); 触角节 III—V 的次生感觉圈分别为 5—7、1、0 (后者: 20, 9, 5)。无翅孤雌蚜与禾毛根蚜的区别也表现在喙端节和后足跗节 II 的长度比。与多毛毛根蚜 *Chaetogeoica polychaeta* Raychaudhuri, Pal & Ghosh, 1978 区分明显, 后者无翅孤雌蚜体毛排列不规则, 多, 长度相近, 腹部缺缘蜡片。

致谢 本文承钟铁森先生绘图、覆墨, 在此表示感谢。

NOTES ON THE GENUS *CHAETOGEOICA* REMAUDIERE ET TAO FROM CHINA (HOMOPTERA: PEMPHIGIDAE)

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Abstract This paper deals with the Chinese species of the genus *Chaetogeoica* Remaudiere et Tao. *Chaetogeoica utriculata* is new to science. A key to the Chinese species is given. The type specimens of the new species are deposited in the Instit-

ute of Zoology, Academia Sinica.

***Chaetogeoica utriculata* Zhang, W. Y. & G. X. Zhang, sp. nov. (fig.1)**

Apterous viviparous female: Yellow in life, with long wax silks. In mounted specimen pale. Large rounded wax plates on the dorsum of body, each plate consisting of at least 20—50 cells. Hairs on the body pointed, hairs on head as fig. 1a. Antennae as fig. 1b. Ultimate rostral segment with 2—4 accessory hairs. Cauda bearing 2 hairs. Anal plate with 16 or 17 hairs.

Measurements in mm: Length of body 1.722, width 1.024; antennae 0.345, segments I—V: 0.040, 0.057, 0.073, 0.057, 0.086+0.032; ultimate rostral segment 0.067; cauda 0.040; hind femur 0.227, hind tibia 0.249. 2nd hind tarsal segments 0.087

Alate viviparous female: In mounted specimen pale. Large wax plates on abdomen as fig. 1g. Each plate consisting of 10—25 cells. Hairs on the body pointed, hairs on abdominal tergites as fig. 1g. Antennae (fig. 1f) with 5—7, 1, 0 secondary sensoria on segments III—V respectively. Fore wing as fig. 1h.

Measurements in mm: Length of body 1.843, width 0.870; antennae 0.559, segments I—VI: 0.043, 0.053, 0.154, 0.071, 0.097, 0.103+0.043; ultimate rostral segment 0.065; cauda 0.029; hind femur 0.290, hind tibia 0.462, 2nd hind tarsal segments 0.118.

Holotype: apterous viviparous female, No. Y5545—1—2—4, Hebei Province: Shexian Co., June 9, 1984, On *Pistacia sinensis* Tian Shipo. Paratypes: 3 apterae, 8 alate viviparous females, others same as above; 2 alatae, June 1982, Liu Huiying, the others same as the holotype.

This species is distinguished from *Chaetogeoica folidentata* in the number of secondary sensoria on antennae in alate viviparous females and gall sizes. In this species on 3rd—5th antennal segments with 5—7, 1, 0 secondary sensoria respectively (in *folidentata*: 8—14, 2—5, 0—2); galls cockcomb in the shape, 100—150 mm in length and 60—70 mm in height, with longitudinal ridges, placed along the main veins of leaves (the latter galls 220 mm in length, 220 mm in height).

This species differs from *C. graminiphaga* Raychaudhuri, Pal. & Ghosh in ultimate rostral segment 0.42 times as long as 3rd antennal segment (1.0 times in *graminiphaga*), 0.56 times as 2nd hind tarsal joint (longer than in the latter); on 3rd—5th antennal segments each with 5—7, 1, 0 secondary sensoria (20, 9, 5 in the latter) in alate viviparous female.

In apterous viviparous female, this species differs from *C. polychaeta* Raychaudhuri, Pal. & Ghosh in the number of dorsal hairs on the abdomen and marginal wax plate. In this species with distinct marginal wax plate (In *polychaeta* absent). In *polychaeta* with numerous smaller hairs arranged irregularly on the dorsum of abdomen.